

REMARKS

Status of the Claims

Claims 13-25 are currently pending and under examination. Claims 1-12 are canceled without prejudice or disclaimer.

Amendments to the Claims

Claim 13 has been amended to recite “consists of” instead of “comprise.” Representative support for the amendment can be found in the claim as originally filed.

Representative support for the changes to claim 13 can be found in the specification at page 6, lines 1-4, and at page 7, lines 4-36. The amendment does not add prohibited new matter.

Representative support for new claim 25 can be found at page 7, lines 4-36. New claim 25 does not add prohibited new matter.

Priority

The Office Action requested a copy of the foreign priority document. A copy of FR99/12287 was filed during the International Phase of PCT/FR00/02698 and was received by the International Bureau on November 9, 2000. A copy of the receipt issued by the International Bureau is enclosed.

Oath/Declaration

The Office Action found the filed oath to be defective. A new oath is enclosed with this paper that properly identifies the citizenship of inventor Xavier Vignon.

Specification

The Office Action objected to the specification as containing a measurement without an accompanying unit of measure. The specification has been amended to correct this.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 13-24 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter of the invention.

The Office Action alleges that the use of the word “reconstituted” in claim 13 is vague and unclear. The word “reconstitute” means to construct again or anew (*i.e.* in a new or different form). It encompasses constructing an item from its constituent parts or returning an item to its original form comprising these constituent parts. In the present invention, a non-human mammalian embryo typically comprises a cell membrane that encloses the cytoplasm and various cellular apparatus, and a replication component diploid nucleus that can direct the division of both subparts throughout various stages of development, including the normal cycles of cell division in which each resulting daughter cell receives a complete set of diploid chromosomes. Claim 13 is directed to the reconstitution of a functional non-human mammalian embryo comprising both a cell membrane and a replication component diploid nucleus, which is functionally equivalent to a wild type non-human mammalian embryo. Moreover, step (ii) of claim 13 has been amended to recite that “transferring said nucleus into the cytoplasm of a recipient oocyte during metaphase II or interphase, thereby reconstituting a non-human mammalian embryo.” Thus, it is respectfully submitted that claim 13 is definite and complete as it stands.

The Office Action also alleges that the use of the words “controlled proteolysis” in claim 13 is unclear. The purpose of the step of controlled proteolysis is to digest nuclear and cytoplasmic structural and functional proteins to free the nucleus to function. The proteolysis must be controlled to the extent that enough material is digested to free the nucleus, but not too much to digest the nuclei itself. Claim 13, as amended, recites the boundaries of proteolysis that permit the invention to function. Moreover, one skilled in the art would recognize without undue experimentation whether additional steps to further purify the nucleus without degrading the nucleus itself needs to be included. For example, a practitioner of the invention can monitor degradation of one or more cytoskeleton or nuclear non-histone proteins (*e.g.* lamins) as well as the integrity of the nucleus to determine when the nucleus is adequately ready for the next step. It is respectfully submitted that claim 13 is definite as it stands.

It appears that the Office Action may be alleging that the scope of the term “controlled proteolysis” is too broad. Applicants respectfully submit that breadth of a term recited in a claim

does not render a claim indefinite (see MPEP 2173.04). If the intended rejection is the breadth of the term, then a new rejection under 35 U.S.C. 112, first paragraph should be introduced in the next Office Action, and the next Office Action cannot be made final.

Rejection under 35 U.S.C. § 102(b)

Claims 13-15 and 17-19 are rejected under 35 U.S.C. § 102(b) as anticipated by Wangh (US Patent 6,753,457 B2).

Claim 13 as it stands is directed to a method of reconstituting a non-human mammalian embryo consisting of steps (i) and (ii) as recited in the claim. Claims 14, 15, and 17-19 are dependent on claim 13 and include all the features of claim 13.

Wangh discloses a method for activating non-dividing cell nuclei for analysis or for reprogramming them for transplantation into an egg. The method of Wangh includes the additional steps of treating the nuclei with an “activating egg cytoplasmic extract” and contacting the nucleus with a “cytostatic factor-containing cytoplasmic extract of a cell in meiotic metaphase II.” These additional steps taught by Wangh are not required by the present invention. Therefore, it is respectfully asserted that Wangh does not anticipate the present invention.

Rejection under 35 U.S.C. § 103(a)

Claims 13-15 and 17-24 are rejected under 35 U.S.C. § 103(a) as obvious under Wangh.

Wangh teaches a method of activating non-dividing cell nuclei for reprogramming them for transplantation into an egg. Wangh does not teach a method of reconstituting a non-human mammalian embryo. The method of Wangh is directed to a different invention and includes steps that are not recited in claim 13 or its dependent claims.

Furthermore, the additional steps taught by Wangh are required for activating non-dividing cell nuclei for reprogramming them for transplantation into an egg. Accordingly, there is no motivation to modify the method of Wangh and delete the two mandatory steps of activating egg cytoplasmic extract and contacting the nucleus with a cytostatic factor-containing cytoplasmic extract of a cell in meiotic metaphase II to obtain the present invention of reconstituting a non-human mammalian embryo. Thus, Wangh does not render the claimed

invention obvious.

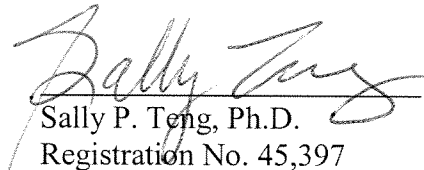
Conclusion

The foregoing amendments and remarks are being made to place the application in condition for allowance. Applicants respectfully request entry of the amendments, reconsideration and the timely allowance of the pending claims. A favorable action is awaited. Should the Examiner find that an interview would be helpful to further prosecution of this application, she is invited to telephone the undersigned at their convenience.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: **December 05, 2007**
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Respectfully submitted,
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